DTS Technology Brief

A Practical Technology Application Overview

The Office of
The Chief Technology Officer
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State of Utah

Prepared by

Robert Woolley
Chief Technologist
and Strategic Planner

Utah.gov Search CSE

GOOGLE CUSTOM SEARCH ENGINE (CSE): TEN STEPS FOR CREATING AN AGENCY CSE

Introduction

Developing a Google Custom Search Engine (CSE) for an agency Web site can be done relatively easily for a single site or for a group of selected Web sites. Detailed documentation for CSE development is available from Google at http://www.google.com/coop/docs/cse/.

A Custom Search Engine consists of an XML specification of the engine and a set of annotations. For most applications, the CSE wizard available at http://www.google.com/coop/manage/cse/create/1 can be used for creating a Custom Search Engine (and not bother with any XML).

There are some features that are not yet available through the form based wizard interface. To access these features, developers can specify the Custom Search Engine using XML.

Creating the CSE Using the Google CSE Wizard

Step One: Establish a Gmail account for wizard access.

Step Two: Use the CSE Wizard.
Go to the CSE wizard at http://www.google.com/coop/manage/cse/create/1.

Step Three: Add Google Marker to your browser.
Google Marker allows you to add and label sites in your Custom Search Engine or in a Google topic. The developer must already have created or signed up to collaborate on a Custom Search Engine to use the Google Marker with a Custom Search Engine.

Step Four: CSE setup.
Set up the basic information concerning the new CSE, including the information illustrated in Figure 1.

The initial setup does not require an exhaustive list of sites or keywords, just a starting point. Non-profit organizations such as State agencies can use the standard edition and select the option to suppress ads.

Step Five: Use the CSE Control Panel.
Go to the Control Panel page for the newly created CSE illustrated in Figure 2 using the IT Research CSE as an example.

Use the control panel to add sites to the CSE, or, optionally, the sites can be added from a file or using the Google Marker application. Use the collaboration option to add other contributors to your CSE development team.

*Figure 1.
Google CSE Setup Screen*

*Figure 2.
CSE Control Panel Screen*

Utah Juvenile Justice CSE

IT Research CSE

Step Six: Add any desired refinements to the CSE.
Refinements are labels that the developer applies to Web sites. They appear as a list of links above search results, offering users a way to narrow their search. When a user clicks a refinement label, the sites that are labeled are given priority in the results. In addition to labeling sites, it is also possible to specify additional words that are added to users' queries when they click a label, providing even more targeted results. The IT Research CSE uses refinements for:

- Presentations
- Architecture
- Reports
- Multimedia
- Comparisons
- Innovation
- Trends
- Standards

Refinements can be specified using search terms and standard Boolean operators.

Step Seven: Set the CSE look and feel.
Look and feel specifications allow the developer to:

- Select a branding style for the search box.
- Customize the style of your search results pages to match your site. For an example see the search display at www.utah.gov.
- Add a logo to your search engine's Google-hosted results page.

Step Eight: Set code options.
Code options allow the developer to:

- Specify search results hosting options.
- Specify search results details.
- Generate search box code that can be pasted into a page on the agency Web site.
- Generate search results code that can be pasted into the agency Web site.

Step Nine: Use Advanced Options.
Advanced options allow the developer to:

- **Upload annotations**. Upload your annotations in the OPML format, the TSV format, or XML format. Each file can contain a maximum of 2000 annotations. You are limited to 5000 annotations altogether for all of your Custom Search Engines and topics.
- **Download annotations**. Download current annotations in the TSV format or XML format.
- **Specify Context**. Use XML to specify the CSE to some of the more advanced features. A context file it will replace the existing search engine. One of the easiest ways to get started with an edited context file is to download the CSE current context, modify it, and then upload the new context.
- **Advanced Search Results Control using AJAX Search API.** The Google AJAX Search API provides even more flexibility in how the developer can display and manipulate search results. The CSE's unique identifier is used to connect with this API.

Utah Constitution CSE

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Archives & History

Archives & History
Research CSE

Step Ten: Preview and test the CSE.
Try out some queries in the CSE. Once the CSE is working the way it is intended, deploy the CSE to the agency Web site by pasting the appropriate code into the desired location.

Examples of State of Utah CSEs

Utah DMV CSE

Utah State Tax Commission CSE

Archives and History Research CSEs

- http://www.historyresearch.utah.gov
- http://publications.utah.gov
- http://publications.utah.gov/utah_law/index.html

- http://www.google.com/cse?cx=016626638030143176847:fiw1kfej4o8&cof=FORID:0&q=education&sa=Search
- http://www.alpine.k12.ut.us/phpApps/genericPage.php?pdid=1
- http://www.google.com/coop/cse?cx=005946968176299016736:4rbl3r1ddba

Department of Environmental Quality CSE
http://www.deq.utah.gov/search.htm

Jordan School District CSE
http://www.jordandistrict.org

Department of Community and Culture CSE